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Lancashire and Latin America[1]

It is almost exactly 100 years since Macaulay asserted that "every schoolboy knows who imprisoned Montezuma and who strangled Atahualpa." I don't know whether this statement was ever challenged or tested, but I venture to claim that every office boy of a Manchester shipper to Latin America could tell you where Manaos is and where Managua, and knows that there is a Santiago in Chile and another in Cuba. The fact is that Lancashire knows Latin America intimately, much more intimately than the "City," for which Latin America usually means Argentina, Brazil, Chile and perhaps Mexico, the countries in whose railways, mines, etc., British capital is invested. Not indeed that that is unimportant, but it does not involve the innumerable personal contacts which our export trade has set up.

If in talking about Lancashire and Latin America I deal chiefly with our exports of cotton piece-goods, it is not because I imagine that they are our only export (I am well aware that we export important quantities of textile and other machinery, of heavy chemicals and of other Lancashire products) or that I imagine that exports are the whole story. It is because they are the most important factor and paved the way for the others.

I do not propose to trace in detail the variegated course of our export trade to these 20 Republics—that is their number and their correct description to-day—much less to give you the figures which show how variegated that course has been. It would not only be dull and difficult to follow; it would be depressing, for, since 1912, it would show a steady decline, accentuated since 1929; but it would set out the whole subject in the wrong perspective. Here are the only figures which I will inflict upon you:

[1]Paper read before the Latin American Conference, held at the University of Manchester, March 14th, 1943.

U.K. Cotton Piece-goods Exports

Year	To Latin America	To all destinations
1855	274	1,938 yards (millions)
1895	866*	5,032 ,, ,,
1913	680	7,076* ,, ,,
1938	182†	1,386† square yards (millions)

*Highest †Lowest

Let me begin at the beginning, which is neither in Lancashire nor in Latin America, neither in Cotton goods nor wholly in English goods nor wholly in exports. If I kept within these limits my earliest date would be 1855, when our exports to these markets of "calicoes, cambrics, muslins, fustians and mixed stuffs," as they were then defined, were first fully and separately recorded.

The first date, I suppose, should be 1492, but from then until the beginning of the eighteenth century such trade as there was with Latin America, which of course only then started to become Latin, and progressively less Indian, was the monopoly of Spain and Portugal. The population, it is true, was greater then than one or even two centuries later. It was 40 millions in 1867, 76 years ago. It is about 105 millions to-day, and Lord Bryce in 1912 forecast a population of 200 millions in South America only, in the year 2000. At the present rate of increase it will be a good deal more. But the Indians of those days were not important, or, I should imagine, altogether eligible buyers of exports from the Old World. Moreover, so far as textiles are concerned, they not only made their own (primitive as no doubt they were, at any rate in the Cordilleras they needed warm clothing), but they actually sold them—that is probably the wrong word to use—to the Spaniards.

Columbus found cotton dresses in Hispañola (now Haiti and San Domingo) and in Brazil Magellan found that the natives used nets, called Hamaks ; whilst Cortes presented to Charles V of Spain "cotton mantles, waistcoats, counterpanes, tapestries and carpets " from South America. That would be about 1500.

The first breach in the Spanish and Portuguese monopoly was made when in 1713, under the Treaty of Utrecht, by the

so-called Asiento, Great Britain was given the right to send annually a ship of 500 tons to South America. That "privilege" (I quote from a report in 1824 by Consul Watts from Cartagena to Canning, who was then Foreign Secretary) "was much encroached upon, and occasioned the establishment of British factories at Cartagena (as also at Panama, Vera Cruz and other places) which were constantly supplied with goods from the British Merchants in Jamaica. Thence arose a very extensive trade from that island with the coasts of Tierra Firme, which has, through countless variations and vicissitudes, existed till the present day. Habits of trade of such long standing have taken deep root, and will yield but slowly to the progress of events arising out of the great revolution which has, of late years, taken place in the commerce of Spanish America. The merchants of the vice-royalty of New Granada, and of the captaincy-general of Venezuela, in defiance of all the prohibitions of the Spanish Government, and of the vigilance of the guarda costas, resorted to Jamaica with their gold for the selection and purchase of their goods, and a very extensive contraband trade was thus carried on, greatly to the advantage of the Jamaica merchants."

Viceroy Marquina of New Spain, *i.e.* Mexico, indignantly reported in this same year that he had "seen with his own eyes the scandalous license with which ships bearing the Spanish flag entered Kingston, and the freedom with which English and Spanish merchants did business together."

Not content with having thus secured the entrée, as it were, in 1808 we pointed out to the Portuguese Regent in Brazil that so long as Portugal was in French occupation, our monopoly in Brazil was useless; and later, when asked if as a reward for preserving Portugal's position in Brazil we were satisfied with m.f.n. treatment, our Minister replied that "it could not fail to produce a good effect in England; but had it [the agreement just concluded] authorised the admittance of British manufactures on terms more advantageous than those granted to other Foreign Nations, it would necessarily have afforded greater satisfaction."

In 1810 Viscount Strangford, in his negotiations at Rio,

seeking to secure a 15 per cent. preference for us alone, was instructed to act on the principle—it hardly seems to me to be a principle—"that England had contented Herself with the Advantages which She must ever derive from the Magnitude of Her Capitals, from the more practised Industry of Her Manufacturers and from the great extent of Her Navigation." But we made such a fine art of smuggling that, of the 35 million pesos of commerce of Spanish America in 1765, it is estimated that we secured 20 millions. So it is not surprising that the Asiento Treaty had lapsed; actually in 1739.

This illicit trade was carried on largely through Jamaica for the Caribbean area, the so-called Spanish Main. Let me quote from another Consular report, from Mexico in 1825. "The English merchants in Jamaica were in the habit of selling to Spanish merchants who resorted there from all parts of South America, but more so from Panama, at moderate prices, receiving part of the payment in ready money and giving credit for the remainder until they could receive the produce of the sales. The freight of goods from thence was also moderate, but the moment they were fanned by the breeze of the Spanish American coast, or at least touched the American soil, the never-ending and unbounded charges incident to those colonies immediately commenced. Duties were levied on them not only at Panama, but again on their introduction into any other port where they were carried for sale. The freight from Panama to San Blas in Spanish vessels was at the rate of about £25 to £28 per ton. These charges together with the great profits they were accustomed to, and delayed sales, tended to make the prices of English goods also very high, and the consumption consequently limited."

Smuggling also went on through Colonia on the River Plate, a practice that Colonia has not completely abandoned even to-day.

That is why I said that our trade began neither in Lancashire nor in Latin America; and it is a fact that until less than a century ago probably the major part of Lancashire Cotton goods imported into Colombia, Venezuela and Ecuador—the Colombia of those days—was shipped from here to Jamaica, St. Thomas and Curaçao, where the merchants from these countries went

once or twice a year to buy. This explains why our recorded exports to the British and Foreign West Indies in the fifties, sixties and seventies of last century are quite out of proportion to the population of those Islands. Nor were our exports at first wholly of Cotton or wholly British. Wool and Linen were manufactured in Lancashire before cotton; it was not until 1774 that the manufacture of fabrics wholly of cotton was legalised by Act of Parliament. In 1835, Edward Baines, reporting that "as for Manchester, the cottons thereof carry away the credit in our Nation, as they did an hundred and fifty years ago," adds in a footnote, "there can be no doubt that these 'cottons' were the woollen fabric of that name." As to the origin of these goods, earliest records show that most of our cotton textile exports were what would now be classified as re-exports and came from India. Consul Nugent, reporting from Chile to Canning in 1825, writes that "the cotton goods in use there consisted of 'Kerseymeres'" (obviously Cashmeres or in Spanish Casimires, which he says are of wool, as they are to-day) "and of platillas, creas, bramantes, britannias, estopillas, rouens, dowlas, osnabergs, bocadillas, cotton ravens and salempores"—a cosmopolitan but largely Indian assortment.

Again in his 1825 report from Mexico, Consul Barron writes: "A great proportion of this trade in Asiatic goods consisted and still consists in a species of coarse cotton cloth called 'sanahs' and 'bafitas,' and in India generally called 'cotton piece goods.'" Sana is a description still applied in Guatemala to certain types of white calico, and bafts are still well known in West Africa. But at last, about 1860, it can be said that we got into our stride; and it was really pretty good going until just before the last War.

This is borne out by the Minutes of the Manchester Chamber of Commerce for this period. We find that from 1840 to about 1855 there is quite a lot about Latin America, and after that, until 1914, there is comparatively little.

In the earlier period, interspersed with references to Ibrahim Pasha, the Two Sicilies and the Railway bridge at Runcorn, there are complaints of losses suffered by British residents in Para as a result of an incursion of Indians. Lord Aberdeen

finally replied seven years later that "the British cannot claim to be more favourably placed than the natives." In 1842 a petition was presented "praying that all foreign and colonial sugars and coffees be admitted for consumption in Great Britain on equal terms. The present regulations operate with peculiar hardship upon the Empire of Brazil, a country which presents a wide field for the employment of British capital and which is now one of the most extensive markets for our manufactures." With it was the statement that Brazil takes from Great Britain a greater quantity of cotton goods than any other country in the World. Evidently little was done, for in 1843 a memorial was presented to the House of Commons stating in surprisingly outspoken terms that "the legislation about coffee has been niggard and puerile in former times and the alterations adopted in the new tariff have little claim to a more gentle appellation."

As long ago as 1812 three-quarters of Brazil's imports were cotton goods valued at 1½ million pounds, with wool a poor second at one-quarter million pounds. And four-fifths of our South American trade was at that time with Brazil.

There was correspondence about a fire at Vera Cruz ; about a commission of ⅛ per cent. which the R.W.I.M.S.P. charged on the value of cochineal and specie shipped from Vera Cruz and Tampico, the only ports available ; about attempts of the President of Ecuador to recruit mercenaries in Europe "in order that he might organise an expedition to disturb the peace in Ecuador and the neighbouring republics." In 1841 the Manchester Chamber complained that in violation of treaty rights Mexico had suddenly doubled the "consumo" duty on our goods, but the Liverpool Chamber was not prepared to go so far, for it declared that "the laws of this Chamber would not warrant it in calling for a war."

In 1845, when the Chamber urged the Earl of Aberdeen to bring to an end the quarrel between Buenos Aires and Montevideo, which was interfering with business, it was told, in language upon which the Foreign Office of 1943 would find it hard to improve, that "Lord Palmerston is aware of the importance of British interests concerned with the commerce carried on with the States bordering on the River Plate."

We had our difficulties. Wars, revolutions, crop failures, the reverse of crop failures—surpluses, notably of coffee and sugar—are reflected in the figures of our exports—reflected both ways, for, as here, war increases the consumption of certain classes of textiles. Thus we find that the figures for the River Plate and Brazil went up in 1865 during the war against Paraguay, and those for Chile and Peru—particularly Chile—in 1879 to 1883 during the war between these countries; on the other hand we find smaller exports to Brazil in 1889, when Dom Pedro was deposed, to Argentina in 1890, the year of the Baring crisis, to Cuba during the Spanish-American war in 1898, and to Colombia during the Revolution of 1899–1901. And above all there is, of course, a great all-round reduction during the American Civil War and the Cotton Famine of 1862–1864, though we seem to have got off the mark for Latin America more quickly than for other parts of the World, for in 1864 Latin America took over 20 per cent. of our cotton piece-goods exports, a figure it has not reached before or since.

In the later period, *i.e.*, after 1860, we were getting on pretty well and so had no need to worry the Authorities either here or in London. In 1864 the Manchester Chamber replied, in reply to an enquiry about Peru, that "conditions were all that could be desired and any change could only be for the worse." It is true that in 1865 the Chamber presented a petition for the appointment of a Secretary of State for Commerce, quoting our total figures for the year 1863, namely £250 million imports and £200 million exports, and stating that "interests so vast are worthy of, nay demand," etc.; but I cannot think that this petition was due to pressure from South American shippers.

There are various interesting reports of this period—in fact rather earlier, before the statistics to which I have referred were available. These reports Mr. Humphreys has rescued from oblivion.[1] They tell what these markets were importing, not only from us but from other manufacturing countries and with what profit—or loss—to the exporters, whilst the chances of

[1]R. A. Humphreys: Consular Reports on the Trade and Politics of Latin America. *Camden Third Series, LXIII, Royal Historical Society,* 1940.

our maintaining and increasing our trade or of our losing it are variously estimated.

I have already quoted from some of these reports. Here are a few more extracts:

Consul Ricketts reports from Lima to Canning in 1826:

"The cambric muslins of Preston, Bolton, etc., have come in large quantities, but those which are not still on hand have been sold at ruinous prices from the preference given to Scotch white and coloured dresses."

Again, "Dresses, printed, which have been seen in almost equal abundance, have been in most cases of a more expensive quality than is required, and have not met a ready sale. In this branch the French and Germans have endeavoured to compete with us, but hitherto unsuccessfully. Lappets, at the opening of the trade, sold largely and well, but the shipments which have been made would have sufficed a population of ten times the amount of this Republic. Forced sales have been the natural consequence, but as the article has thus found a consumption in remote parts of the country, the demand will probably be permanent. No foreign nation has interfered with this branch of commerce."

"Book muslins, Japan sprigs, and other descriptions of muslins have, when the quality has been sufficiently good, answered well; but British exporters have yet to learn the extent of expense to which the females of this country who consume this class of manufactures will go for their dresses. It is a singular fact that the greater part of the French dresses trimmed with gold or silver, which sell at 15 to 80 dollars each, are made of Scotch book or mull muslin." Consul Woodbine Parish reports from Buenos Aires that "the use of plain cotton goods was almost unknown, French and German linens being the articles used instead"; but he also writes, "if the gaucho's wife has a gown, ten to one it is made in Manchester."

There were even in those days some sound economists. In 1844 the Manchester Chamber stated, "the prudent course for all nations is to buy in the cheapest and to sell in the dearest markets," and Consul Ricketts of Lima, from whom I have already quoted, complaining of a 90 per cent. duty on imported

Tocuyos (Grey Shirtings) wrote that "the prevention of their importation would only tend to the substitution of a dear article of inferior quality over a cheap one of superior, to the profit of a few and the consequent loss of the many." Some people had other ideas about the conduct of business. Colonial Commissioners were appointed to Mexico and Colombia, and we are told that the British Commissioner landed at Santa Marta in December 1823 with 20 dozen of Sherry, 42 dozen of Claret and 6 dozen each of Hock and French Burgundy.

It was in these years, from the 'sixties of last century, that our intimate business relationship between Lancashire and Latin America was established and extended, but it was more than a strictly business relationship. Textiles were the chief import of these countries—certainly the most widely distributed import —and so the traffic in them touched the lives of the people; and although the purchasing power of each country depended upon its crops or its minerals, upon its coffee, rubber, maize, copper, etc., the export trade was handled by comparatively few people. So it came about that in many places in South America Manchester was better known even than London, and it was to Manchester that they looked for much more than the textiles which we supplied. How did this come about? Not, I suggest, merely because they needed our textiles, but because we gave them service. We did not act upon the principle that salesmanship is making people buy what they don't want. A phrase often used almost automatically in our business letters "al mutuo provecho" (in our mutual interest) expresses the principle which governed our dealings, for we realised that the better we served them the better we served ourselves, that our interests were bound up in theirs. That is how the fast friendships were formed, which, in spite of all changes, still exist to-day.

There was also in the early days a considerable import trade. We were a man's only "relacion" (connection) on this side, so he sent us his coffee or his gold bars or ivory nuts; and not only his, but his friends', who had no "relacion" here. We sold these consignments, for such they were, and not as to-day sent to fulfil a contract quoted by cable down to the minutest detail; and we then credited him with the proceeds. Of course

they did not always come up to the exporter's expectations. I remember one consignment of Dividivi which turned out to be nothing but old tree-trunks, so that the proceeds were a minus quantity. In addition to these imports there were many miscellaneous exports, both for business and for private purposes. There was, for instance, a highly specialised and not unimportant trade in woollen baizes, so-called "Bayetas," which were made in the Rossendale Valley, particularly at Rawtenstall and Waterfoot, as well as at Sowerby Bridge and Halifax. These bayetas are really rugs or blankets, in the piece, dyed, originally with vegetable dyes, in the most magnificent colours, with resounding names of Miltonic grandeur, such as Aroma encendido (high coloured Balsam), Sangre de Toro (Bull's Blood), Dragon (which I need not translate), Cresto de gallo (Cockscomb), Ojo del Cielo (Eye of Heaven). There were three qualities, Castillo, Pellon and Cien hilos, and for children the lighter Faxuelas. Although these bayetas were an imitation of the native cloths used for Ponchos, for petticoats—in Peru and Bolivia the women used to wear five or six of them—as well as for blankets, saddle-cloths, etc., certain types with a peculiar curl and gloss can only be made of home-grown British wool; neither Australian, South African nor Argentine wool is suitable. Two features of this trade should be mentioned: the elaborate make-up of the pieces in linen tillots, as compact as a bolster, with a bit of the cloth hanging out to show the colour, a gold seal and elaborate marking stencilled in 4 or 5 colours, with the name of the quality, the crest of the maker and the length of the piece. The other is that, along with Sewing Cotton, this business was usually or at least largely conducted on a consignment basis.

Nor were the private purchases unimportant: in volume and value, yes, but psychologically, no. To attend to the trousseau of your client's daughter was as important as the despatch of his biggest order. Not only that. You were expected not to make any charge for such services. I know that my firm once lost a good account because we made the mistake of charging commission on a safe which our clients had ordered for their own use. On my first visit to South

America I called on these people, old and faithful clients; I was received politely, but when it came to buying there was nothing doing. They did not say why. I only discovered it quite a long time after; but the harm was done and the account was lost. In those days you did not go baldheaded for orders. You talked about things in general, about crops, about politics, above all about your client's family and your own. Finally, after days, sometimes weeks, you got your order, to be executed of course at best, and despatched when ready. No bargaining. Just mutual confidence. Of course, there were similar arrangements on this side. I have before me this letter written 70 years ago to my firm and signed by John Rylands himself:

"Referring to the verbal conversation had with you, we engage for the next twelve months, on the part of the Dacca Twist Co. only (apart, and distinct from Rylands & Sons) to confine to the best of our ability, the whole of the numbers of their bleached goods adopted by you, for the West India Islands (with the exception of Jamaica and Hayti), for Venezuela, New Granada, Central America and Portugal, and will not knowingly sell any of such goods for the above markets."

I am sure that no one really fares any better with to-day's high pressure selling; with cables and airmails, with formal contracts signed and sealed. In those spacious days we business people, on this side and that, were far more content than under present conditions. One could hardly imagine to-day the experience we had with one of our travellers about 60 years ago. He just disappeared. For many weeks we heard nothing of him. At last a letter to say that he had been on a hunting expedition with our chief clients and that on their return they had asked him to be good enough to send home the enclosed order. And it was not a small one. Probably not a word of "shop," certainly no details of "shop" had been discussed all the time.

Another very important and often difficult and embarrassing consequence of these intimate relations was that we were charged with the education and guardianship of our clients' children. Some of us have had considerable experience in this responsible task. I have. Term-time was comparatively easy, but the

problem of holidays was often almost insoluble, and yet, to put it at its lowest, it paid to do the job conscientiously; and to put it on a higher plane, one got (at least I did) much pleasure and satisfaction out of it.

In these various ways, then, the goodwill was fostered, which even now brings, or rather after the war will surely again bring, its reward; for at least whenever other things are equal we shall get the preference. [An illustration, not I admit so much of South American affection for us as of their attitude, certainly their pre-war attitude, towards the U.S.A., is an incident that is said to have occurred at la Paz when someone introduced the American to the Brazilian Minister: "Allow me to introduce the Minister of the United States."—"The United States of what?" was the frigid reply.]

One hears a lot of nonsense about the quality of our textiles and the rubbish which Japan and other countries produce. Those who talk like that completely miss the point. We too still make and sell the lowest qualities. The point is that we can be relied upon to deliver what we sell; that, to quote a crucial test in which, as I was once told in Buenos Aires, Manchester does not fail: "If we make a claim, the fact that we may already have paid for the goods makes no difference." It is that sort of thing that counts. Then there is the high-sounding stuff about a Corps d'élite of salesmen. Think of him, in Costa Rica or Ecuador, in his immaculate clothes, even with his copy-book Spanish, fairly frightening the little importer who is accustomed to meet travellers on quite a different footing. It may be that our technique is not perfect either. In an American publication, *The Complete Colour Prescription*, it was suggested that women would do the job much better because "nearly all business men dress like pessimists" and because "whilst every woman is born at par, every man is born two double whiskies below par." Be that as it may, it is not by sending out men who don't know their job, technically and psychologically, that we have built up this business, not owing to shortcomings on their part has it shrunk to its present volume.

The assault which we have been unable to withstand has come from two quarters, from local industries and from foreign

competition. As long ago as 1851 Mexico had 46 factories and 138,862 spindles; Bahia had 3 factories and a fourth was building, and to encourage native manufacture there was a 2 per cent. export bounty on produce exported in home-made bags. In 1905 Mexico had half a million spindles and 15,000 looms, whilst Brazil had 300,000 spindles and 1,500 looms. But the first serious inroads are shown by the figures of our exports to Mexico in 1901 and to Brazil in 1914, whilst in 1931 our exports of cotton textiles to these two countries had almost disappeared. The earlier losses did not matter so much to Lancashire, though individual firms suffered, for our trade was still expanding, and the losses in one quarter were more than made up by the gains elsewhere. This increase in local industry is bound to continue, and were it not that people cannot now get fresh textile machinery, the pace would have increased during the war. The same with foreign competition. It was first seriously felt at the beginning of this century, when the U.S.A., with their grey shirtings, denims, and above all their narrow prints, mass-produced for their great home market, competed with us, especially in the West Indies, Central America and Colombia. But although the U.S.A. undoubtedly gave good value, the fact that their cloths were branded, so that the middleman's profit was liable to be cut—the modern price-fixing methods were not then invented—and their rigid and short-credit terms caused buyers to stick to us wherever and for as long as they could. Others entered the field. Italy with the heavy yarn-dyed qualities for men's shirts and suits and women's blouses and skirts, which Italians wear at home, provided the hundreds of thousands of Italian immigrants into Argentina and elsewhere with the goods to which they were accustomed. Finally Japan, with her irresistible prices, knocked us clean out in whatever lines were suitable for the market, unless she was in one way or another excluded or handicapped.

In two other ways we have suffered: by discrimination against us and by changes of fashion. As to the first, apart from the loss of Porto Rico in 1898, the only major loss has been in Cuba, where since 1898 the U.S.A. have enjoyed a tariff preference of 30 to 40 per cent., leaving an opening only for certain

Lancashire specialities. Otherwise, thanks partly to our m.f.n. arrangements, partly to the fact that we are—or were—many of these countries' best customers, discrimination has on the whole been in our favour rather than against us.

You might think that the changes of fashion would help rather than hinder us because we would be quicker to adapt our goods to meet them if indeed we did not ourselves set the new fashions. True. But I am thinking of a more general and less ephemeral change than these. Fifty, thirty, even twenty years ago, just as Lancashire produced Sarongs and Saris, Kangas and Tanjibs for Asia and Africa, so she produced specialities for Latin America. They had not usually such exotic names, though some of us may recall the "Carmelitas" and "Panchos" of Colombia, and those of the Bayetas, which I have already mentioned. All the same they were specialities, many, no doubt, adaptations of native Indian garments which we and only we produced. You could go to a calico printer, especially before the days of the C.P.A. (1899), and pick out styles suitable not merely for Brazil or Peru or Colombia only, but for Rio and San Paulo but not for Ceara and Maranhao, or vice versa ; or for Arequipa or Lima or Piura ; or for Barranquilla but not for Bogota ; nor was this confined to printed goods. It applied, as exporters knew, to the finish and also even to the length and the makeup of White Calicoes. So we catered specially and expressly, not just for each country, but for every market in each country. That is, to some extent, a thing of the past. How far it is due to industrialisation, how far to the increase of literacy, how far—pretty far, I think—to the films, how far to standardisation in production, how far to the increased sale of made-up garments instead of materials of which to make them, to fashion papers, Butterick patterns, the tendency for dresses, gloves, stockings, reticules, earrings, even nail polish, all to match, it is difficult to say ; but the fact remains that from Mexico to Puntarenas, subject only to variations due to the climate, tierra caliente and tierra fria, and to certain exceptions imposed by tariffs, such as the virtual exclusion of rayon goods from those countries which levy upon them the same duties as upon real silk, taste may be said to be uniform and European,

so that the old specialisation in which we excelled is no more.

The statistics, had I quoted them, would have been confined to cotton piece goods until 1908. In that year cotton yarn shipments to Argentina were recorded for the first time, and in 1923 to Brazil. So long as we exported yarn for native handlooms, or as sewing cotton, it was all right. But now when there is an increase in yarn exports it usually coincides with or precedes a more than corresponding decrease in cloth exports; and later, when spinning follows weaving, the yarn exports decline too. It is not a cheerful prospect. Just now the tables are turned upon us with a vengeance, for Brazil and Mexico have become exporters of cotton piece goods—Mexico perhaps temporarily; we hope so—but about Brazil we cannot be so confident. She has now a complete and modern equipment, cotton on the spot (whereas ours has to cross the ocean twice), and an under-valued currency which makes her exports cheap when payable in Argentine pesos or Venezuelan bolivares. This Brazilian competition the Cotton Board has recently rubbed in—for our good, I do not deny—by holding an exhibition of Brazilian fabrics in its Colour, Design and Style Centre. No doubt many of us went about saying that it was easy enough for Brazil to compete whilst we were hors de combat—or rather engaged in another combat—in which we are glad that Brazil has now joined us; but all the same it gave us a sort of sinking feeling to see this pretty wide range, both of qualities and of designs, with which when the time comes we shall have to compete. I see that the Brazilian cotton piece goods output for 1942 has been estimated at nearly 1,750 million yards—rather more than our total exports in the immediate pre-war years. It is, as I have said, not a cheerful prospect.

Professor Fisher has pointed out (*The Manchester School*, Vol. XIII, No. I, pp. 1 to 23) that the industrialisation of agricultural countries is not hostile to the interests of British manufacturers, if, instead of trying to patch up declining markets, we give our energies to the exploration of new outlets for new products. We need more enterprise, more research, greater adaptability, a willingness to make changes in our own economy.

Given these, Britain's trade with Latin America should be no less active and profitable in the future than in the past. We have one great asset which it is in our power to keep—the reputation for fair dealing which we have established. That is what I meant when I said that the figures alone would set out the subject in the wrong perspective.

W. H. Zimmern

How Widespread are National Savings?

A Critique of the Madge Enquiry.

Introduction : The National Savings Movement is important not only for the part it plays in the scheme of War finance, but also for its potential contribution towards a wider and more equal spread of the National Wealth. The more we plan to provide Social Security by means of State schemes—on the lines of the Beveridge Plan—the more important it also becomes not to neglect that other road towards security ; the accumulation of a capital reserve by a large number of individuals, through their own savings efforts.

In assessing how far the National Savings Movement fulfils its function (both in war finance and especially as a "second leg" of social security) it is important to know how widespread the movement is. The distribution of the amounts collected may matter even more than the aggregate total. It is, therefore, disconcerting to find that a recent investigation[1] contends that National Savings are very unequally spread, that 44 per cent. of all wager-earners' families are not touched at all, that 3 per cent. of all families account for 31 per cent. of all National Savings and are thus on the way of becoming a new aristocracy, and that generally "a large proportion of wage-earners' savings are due to a small proportion of wage-earners."

These statements are serious enough to justify a critical examination of the evidence on which they are based—a sample of working-class households in Leeds during 1942. Our critical examination will show that little value attaches to the evidence adduced and that the conclusions fall to the ground for lack of evidence.

[1]Charles Madge : *The War-Time Pattern of Saving and Spending.* Published by the Cambridge University Press (1943) as a publication of the National Institute of Economic and Social Research. All page references are to this book.

The reasons are set out in detail under the following headings:

I. The definition and method used is defective.

II. The sample is heavily biased, the errors being of a cumulative nature as regards National Savings.

III. The sample, even if it could be accepted as unbiased, is much too small to draw effective conclusions from it.

IV. The results obtained are evidently inaccurate and incomplete as shown by internal inconsistencies.

V. External checks confirm the unrepresentative nature of the sample.

VI. There are serious gaps in the information collected, owing to the restricted scope of the enquiry.

VII. Even if (in spite of the objections listed under I-VI) the evidence collected could be accepted as satisfactory, the conclusions drawn from it would still be open to much doubt.

I. *Definition of Savings.* Before entering upon an examination of sources of bias in the sample chosen (II) we may point out some understatements of savings due to the special definition used by Mr. Madge.

House purchase by mortgage payments is counted as "expenditure," although it should have been counted as savings and has been so treated in other Social Surveys. It is at least possible that its inclusion would have materially altered the results. No figures of mortgage payments are given for Leeds, but the Ministry of Labour found in 1937–8 that 18 per cent. of workers were buying their own houses in this manner, each of these families paying 2/1 (*i.e.* 25 per cent. of Madge's "savings") in excess of the rent (and rates) paid by non-buying families.

Moreover, if among the 44 per cent. who are "non-savers" we have to look for all or the bulk of the 18 per cent. who are participants in mortgage payments (quite a likely combination), the resulting degree of "concentration" of savings in a few hands

would be much diminished ; no data were collected by Madge to throw light on this point.

Compulsory State Insurances and Income Tax Post-War Credits are also excluded from "savings." The inclusion of I.T. Credits—now accruing to a large majority of wage-earners, and in fairly standardised amounts—would tend to diminish the degree of concentration shown.

So far the definition of "savings" used by Mr. Madge, though narrow, is perfectly defensible. There is, however, a serious and indefensible way in which savings are systematically underestimated. To quote Mr. Madge (p. 69) : "The possibility of heavy saving during one month being made up of money accumulated in previous months is ruled out by the technique employed whereby current expenditure and saving had to balance against current income if the information was to qualify for inclusion with the 'successful' interviews and budgets." The gradual accumulation of money over several income periods and its subsequent conversion into "savings" is a perfectly genuine form of savings, and of "National Savings" at that. There is nothing to be said for its exclusion. Again the total amount will be underestimated, and it is at least perfectly possible that if the omission were made good, the degree of concentration of National Savings might be shown to be less. Among the families excluded because of heavy residuals there might be a number disqualified precisely because they were accumulating money to put into savings at some later date (when, perhaps, 15/– had been reached to buy a Certificate), possibly at the next War Weapons Week which took place *after* the enquiry had been completed ! Here is a very serious systematic understatement.

In connection with this point it is worth noting that there will always be, in any particular week, persons who put money by but do not *in that same week* consolidate their savings into one of the securities offered by the National Savings Movement. There is no harm in this, and persons thus disqualified by the Madge definition may be highly regular and substantial war-savers. One of the most obvious reasons why such savers may hold their savings in the temporary form of money is an inability, in that particular week, to get to a Post Office or Bank because

of heavy war work. The success of special War Weapons' weeks, etc., is in itself evidence that a proportion even of money hoarded over a much longer period than one week may subsequently be converted into genuine savings. To exclude any accumulation of money during one single week from savings and even to call the interview with such savers "unsuccessful" is a bad slip which could not have happened if a proper economic definition of "savings" had been in the mind of the investigators. Be it noted that a family which *dishoards* money into National Savings during that particular week is also not counted as a saver, as income is calculated ***minus*** such dissavings (page 30), and the inclusion of Savings Certificates, etc., bought out of dishoarded money would thus raise the total outgoings over and above income, and thus the interview would have to be discarded as "unsuccessful." Thus, Mr. Madge has it both ways: a family which *hoards* money with a view to subsequent conversion into National Savings is not counted as saving, and a family which *dishoards* money is not counted as a saver, either! This is clearly absurd.

To conclude this section, on grounds of definition alone it is not surprising that the savings total evidently comes out too low. Moreover, the error is of such a kind as might seriously affect the results regarding "concentration" of National Savings.

II. *Sources of bias in the sample.* It hardly needs stressing that in enquiries based on sample surveys it is of supreme importance that the sample should be "random," that is, not preselected with regard to the aspect under study. Slight sources of bias increase the margin of error attaching to the results obtained; serious bias makes the results worthless. Mr. Madge's results are vitiated by serious and cumulative bias.

First we notice the high percentage of unsuccessful interviews. Even an originally unbiased sample may be made biased if the actual results are based on what is but a selection from the original sample. Mr. Madge claims a 55 per cent. rate of successes (p. 25)—even this would be a small percentage—but this is hardly borne out by the actual figures. The rate of successes should be calculated as follows:

Total No. in Sample:	2,089
Of these outside scope (non-wage earners):	416
Wage earners' sample:	1,673
Total successful interviews and budgets:	715 = 42.7 per cent.

The rate of successes is thus less than 43 per cent. (and even this may be an overstatement because of the possible overlapping of budgets and interviews). The door is thus left wide open for pre-selection within the random sample.

In which directions, then, has pre-selection within the sample taken place? First, we note the admission (p. 24) that 24 families where the earner was a black-coat were wrongly excluded. As black-coat workers are subsequently shown, on the average, to save 26 per cent. more than manual workers, this will again tend to underrate savings. From Table VIII on p. 26 we note that black-coat workers are only 9 per cent. of all successful interviews, while they should be 12 per cent.

This, however, is only part of the story. Apparently, people were asked to state their own occupation (p. 20, "If the interviewers' knock or ring is answered, the first question is the occupation of the main earner"). The tendency towards "self-glorification" or "magnification" of occupation is a well-known fact from the Census of Occupations. It is freely conceded by the Registrar-General that such a tendency completely spoils, *e.g.*, the statistics of occupational mortality. The number of people who put themselves down as "managers," for instance, is up to three times the true number. Thus an unknown number of persons may have been excluded on their own assessment. These persons are likely to consist largely of black-coats or skilled men with a high income and high savings. In this connection, it is worth noting that the percentage of the obtainable addresses put down as "professional, propertied or shopkeepers" is suspiciously high, at 21.8 per cent. (416 out of 1,920),[1] especially when it is remembered that a high proportion of the "upper" classes would tend to live outside the City boundaries. Again,

[1]To the extent that there is duplication between interviews and budgets this percentage would come out even higher.

this error would tend towards an understatement of savings and to an overrating of the degree of concentration of savings.

Next, it is evident that the "unobtainable" group will also include a number of cases where it is difficult to find people at home because there are no young children at home and all members are away as earners. Again, these are likely to be high-income and high-saving families.

The sample is clearly overloaded with small families. Small families, especially those with one earner and no subsidiary earners or lodger-earners, are easier to analyse. The size of the average family is given as 2.85 persons on p. 30; excluding Service wives and pensioners the figure seems to be 3.24 (from p. 37). Excluding Service wives but including Pensioners (to make it comparable with pre-war data), the figure could not be higher than 3.00. This compares with 3.75 persons in the Ministry of Labour Survey 1937–8, 3.37 persons in Rowntree's York Survey (1936), and 3.35 in the Bristol Survey (1937). It is doubtful whether war-time conditions—after the exclusion of Service wives—would tend to make families smaller or larger, but the comparison does establish a presumption that the larger families with a more complex composition have been understated. The number of persons per private family in England and Wales in 1931 was 3.72.

Madge himself admits (p. 26) that the type of family which "includes large and complicated combinations with adult secondary earners" is "responsible for a high proportion of the 'inadequate' interviews, twice as many as if distribution had been normal." This is not the whole story: the table on p. 26 shows that the percentage of refused and doubtful interviews was also 55 per cent. above normal for this type of family, and the percentage of non-completed interviews also 30 per cent. above normal. As lodger-earners—especially female ones—are shown on p. 33 to be heavy National Savers (but very poor Insurance Savers)[1] this omission (*a*) underrates Total Savings, (*b*) underrates National Savings in relation to Insurance Savings, and (*c*) overrates the degree of concentration of National Savings.

[1]In the case of male lodger-earners the heavy residual suggests that savings are also, in fact, quite high. On this point, see below, p. 27.

There is more evidence of the degree in which families with secondary earners (lodger-earners) have been underrated, in the table on p. 37, comparing the first and second halves of the successful interviews. The number of lodger-earners per successfully interviewed family in the second half of the survey when the investigators had "improved experience" (p. 37) was 2½ times that of the first half (0.34 as against 0.14). The small average size of the family even in the second half of the survey leaves open the possibility that in spite of "improved experience," the proportion of lodger-earners is still underestimated in a substantial degree.

The small percentage of successful interviews gives general ground for the suspicion that a serious, and statistically not measurable, bias has been introduced by the association of secretiveness and thrift. This is more than a "possibility": (as admitted in the survey) it is a high probability, in the nature of the case. In the sample itself there certainly is evidence of an association of secretiveness and high incomes. Looking at the table on p. 37 again, and comparing the two halves of the successful interviews, we find that ascertained gross income per family during the second half of the survey (with "improved experience") is no less than 14/2 (or 14 per cent.) higher than during the first half. This could hardly be explained as a war-time increase in incomes, as the time lag between the two halves of the survey is only three months. Thus, incomes during the first half of the interviews seem to be understated, and in the nature of things the difference is most likely to come out in savings. In fact, we find that National Savings are heavily understated in the first half of the sample; they are only 58 per cent. of what they are in the second half of the interviews (2/6 as against 4/4). This at least raises the suspicion that in spite of "improved experience" the second half of the sample may fall short of the truth just as the first half falls short of the second. The facts strongly suggest correlation of secretiveness with both thrift and high incomes. In any case, even if we assume the second half of the interviews to reflect the true state of affairs, the total figure for National Saving should be raised by no less than 29 per cent. This indi-

cates the broad margins of error to which the findings are exposed.

To sum up this section, it has been shown that in various respects the interviews and budgets finally used represent not a random but a pre-selected collection of a kind such as to minimise savings and to distort their distribution.

III. *The small size of the sample.* Next, we ask: even provided the interviews and budgets could be described as purely random, without pre-selective bias (which they are not), could the results be considered as well-established? The sample is used for conclusions as to the saving and spending habits of British wage-earners, a population of roughly 40 million persons living in some 11 million families. Now the minimum size of a sample required to draw reliable conclusions depends on three factors: (*a*) The size of the population for which the conclusions are to be drawn. The Madge Survey is more reliable as an indication of savings habits in Leeds than in Great Britain as a whole. (*b*) The "variability" or scatter in the chief characteristic to be observed. A given sample of, shall we say, 500 adults will give us a better indication of the average height of the population than of average income, because height varies comparatively little as between individuals. The more variable the thing to be measured the less reliable a sample of a given size becomes—or the larger the sample ought to be before a given degree of reliability is obtained. In this instance, we note that savings are extremely variable and unequally distributed as between families: this is indeed the main thesis of the Survey. (*c*) The degree in which the total sample is to be sub-divided. The more sub-division, the greater the sample required to give meaning to the comparisons among the sub-divisions. In this case, there is a good deal of sub-division (by incomes, by family composition, by social grade, by amount of saving, etc.).

Thus in our case all three factors (a big total population, extreme variability of savings and a large number of sub-divisions) conspire to require a big sample. In view of these facts, the sample, even if random, would be much too small for calculations of National Savings and their distribution. The

statistical error (standard error) attaching to the statements made is in almost all cases so enormous as to make the statement quite meaningless.

Take, for instance, the figure for average National Savings of all budget families, which is 4/11 per week (p. 35). This figure is affected with a statistical standard error of 51 pence, *i.e.*, 4/3 (Appendix V, p. 131). I wonder if the readers will realise what this means. It is sound statistical tradition to admit a margin of possible error arising from sampling flukes up to three times, certainly twice the standard error. Therefore the statement regarding average National Savings per budget family really ought to read: "Average national savings in our budget families were 4/11. But our sample is so small that in the population as a whole, it might be as low as practically nothing, or again it might just conceivably be as high as 17/8 and quite possibly as high as 13/5 (*i.e.* more than 2½ times our own figure of 4/11)." Put in this way it is apparent how little generalisation value attaches to the figures. The fact, that the official figure for National Savings comes out several times higher than the figure obtained from a generalisation of the sample, also ceases to be quite so surprising.

In the few cases, where the standard error is calculated—in the part written by Mr. Rothbart—it becomes apparent how broad is the margin of error due to the excessive smallness of the sample. Thus, differences between National Savings and All Savings, and as between black-coated and manual workers, of 33 per cent. and 26 per cent. respectively, have to be rejected as inconclusive (p. 81). This shows with what enormously broad margins of error all the results ought to be taken. Similarly, in the table at the top of p. 81, differences in the National Savings of unskilled and skilled workers, ranging from 20 per cent. to over 50 per cent., have to be rejected as "within the range of error of random sampling" (p. 80), owing to the insufficient size of the sample.

We have applied this statistical test to a number of comparisons in the survey, and we have invariably found that even apparently striking results are based on such a small number of cases that the results lose all significance. Although space

forbids the accumulation of examples, we feel justified in stating that there is hardly any comparison of the various groups in the sample (families with and without children, etc.) which must not be classed as "inconclusive for lack of numbers."

The smallness of the sample also means that some of the more startling correlations are based on an extremely small number of cases. Thus, from the table on p. 138 it can be deduced that the alleged strong association of National Savings (as a "luxury") with rising income (above, but not below a level of about £5/10/– a week) is entirely due to a few extreme cases. In the case of families consisting of husband and wife only, the exclusion of only three families reduces the proportion of increments of income saved from 20 per cent. to 11 per cent., and it reduces the degree of correlation between National Savings and incomes to less than what it is on the lower level. In the case of the second largest group (husband, wife and 1 child), the exclusion of one single family reduces the proportion of income increments above the average saved in the form of National Savings from 12 per cent. to 9 per cent. All this illustrates the extreme dependence of the results on a few individual cases due to the insufficient size of the sample. In the case of unskilled workers, the inclusion of three top families raises the proportion of increments of "excess incomes" which go into National Savings at higher income levels, from 10 per cent. to 60 per cent.!

To conclude this section we may compare the sample upon which Mr. Madge's results are based with those of other enquiries. Mr. Madge bases his conclusions on 715 cases. The Ministry of Labour in 1937–8 collected 10,762 budgets. The Bristol Survey (1937) is based on 4,491 families. Mr. Rowntree's 1936 survey in York is based on 16,362. This illustrates the sort of size which has been found necessary elsewhere for sound conclusions and formation of sub-groups.

IV. *Internal Inconsistencies in the Results Obtained.* So far we have shown how selective bias within the sample and the insufficient size of the sample throw doubt on the results obtained. In this section we shall consider some internal inconsistencies which further add to the doubt.

To begin with, we note the *high residuals* which form a substantial proportion of savings. As the residuals tend to be positive,[1] they must either be non-allocated expenditure or savings, and in the nature of things it is at least possible that all or most of the residuals ought to be added to National Savings. The addition of residuals would result in the following increase of National Savings. All Leeds families 53 per cent.; male lodger-earners, 263 per cent.; female lodger-earners, 52 per cent.; budgets, 31 per cent.; interviews, 51 per cent. First half of interviews, 77 per cent.; second half, 42 per cent. Man and wife: low income levels, 108 per cent.; middle, 80 per cent.; high, 12 per cent. And these figures relate only to the "successful" interviews, *i.e.*, where the residual was considered to be small enough! The three last figures[2] are specially important since they establish a presumption that the savings of low and medium income groups may have been more heavily underrated; this, of course, would tend to overrate the degree of concentration and the "luxury" nature of National Savings.

Generally, it may be seen that the high residuals open up at least a possibility of a heavy understatement of savings, especially by male lodger-earners (whose savings look in any case so suspiciously low as compared with female lodger-earners, that their high residuals are almost certainly due to secretiveness regarding savings).

It is noteworthy that Mr. Madge himself, when trying to make his results comparable with the Ministry of Labour study of working-class expenditure 1937–8, deducts from his figure not only the amount of National Savings *but also the residual* (p. 37). This seems to amount to an implied recognition that the residuals ought to be added to Savings. The results of this operation (as has been shown already) would make a great difference to the amount and distribution of savings.

The disagreement between the two halves of the interview has been dealt with previously as showing the selective nature of the successful part of the sample. We now add that the budgets—when the recording presumably was more careful than

[1] Except for Service wives and Pensioners.
[2] Calculated from the table on p. 63.

with the interviews—show 37 per cent. more National Savings (4/11 as against 3/7), and 24 per cent. more total Savings (10/5 as against 8/5) than the interviewed families—again a very considerable addition to the basic results, and a strong disagreement. Moreover, even if the budgets are compared with the interviews *for the same families*, National Savings come out 9 per cent. higher (4/2–3/8), and total savings 7 per cent. higher (9/8–9/–). This again points to underrating of saving in the interviews, even though the families who were prepared to keep budgets might also be assumed to have been the least secretive in the interviews. On comparing the budgets and the budget interviews, it is noteworthy that of the reduction of residuals by 1/2, eightpence, or more than half, was found in the budgets to be additional savings not brought out by the interviews.[1] This lends force to the contention earlier in this section, that the residuals might conceal a substantial understatement of savings.

As to the disagreement between budgets and interviews it is also important to note that while 44 per cent. in the interview group did not contribute to National Savings (and this is a "key result" of the enquiry) in the budget group the percentage of non-saving families turned out to be only 28 per cent. This may be due to a tendency of budget-keepers to be more economical families, but it may also be due to gaps in the recording of savings in the interviews.

When calculating discrepancies within the results obtained it is important to note that the discrepancies are always heavier with National Savings than with all the other major groups listed. This again is circumstantial evidence that secretiveness is a specially important factor in connection with savings. Thus, the discrepancies between interviews and budgets are: food, 4 per cent., fuel, 4 per cent., clothes, 9 per cent., "luxuries," 2 per cent., "miscellaneous items," 10 per cent., other items, 36 per cent., *National Savings, 37 per cent.*, insurance savings, 14 per cent:

The addition to National Savings which ought to be made to the results of the enquiry, on the strength of the results

[1]All figures mentioned in this section are based on the tables given on p. 35.

obtained during the second half and the budgets, is as follows: Husband and wife, 42 per cent.; Husband, wife and 1 child, 26 per cent.; husband, wife and miscellaneous children, 11 per cent.; husband, wife and various, 17 per cent. This comparison is specially important, because it shows that the understatement of National Savings is specially heavy for that type of family where such savings are specially high (husband and wife only); here again is evidence of relationship between heavy saving and secretiveness.

The most striking proof, however, of enormous understatement of National Savings is provided by the following facts: During the second half of the interviews ("with improved experience") National Savings came out as follows, compared with the first half—husband and wife, more than twice as much; husband and 1 child, more than four times as much; husband, wife and miscellaneous children under 14, more than twice as much; husband, wife and various, almost four times as much.[1] Evidently, the results of the first half regarding National Savings must be treated as quite worthless, and yet the total figures are partially based on it.

In this connection, be it noted that on the budget data the degree of concentration of National Savings is decidedly less than on the interview data. On the budget data, the top 10 per cent. of all families do 51 per cent. of all National Savings, as compared with 59½ per cent. on the interview data (p. 68).

The claim (on p. 28) that "from all these checking operations, it seems that we can treat the successful interviews and budgets in combination as giving a sufficiently accurate and representative account of spending and saving to justify further subdivision and analysis" is clearly not borne out.

V. *External Checks.* We have previously pointed out that the sample is biased in the direction of understating incomes (and therefore savings). This can be confirmed by some external checks. When the Ministry of Labour took its 1937–8 survey,

[1]Figures from p. 37. Only for families without a "man-wife" component (18 per cent. of all families) was there moderate agreement, the second half coming out as 22 per cent. less.

average expenditure was found to be—among urban workers—£4/6/3 per week. Adding to this only 5/– for State insurance and savings (a deliberately low figure) we get £4/11/3. Average earnings of male workers at the time were £3/9/–, so that working-class family income would appear to be about 32 per cent. above average male earnings. This appears a reasonable result, taking into account subsidiary earners and other sources of income. (There are 1.75 earners per working-class family.) Average male earnings for January and July 1942 were £5/6/7. Adding to this 32 per cent., we should get £7/0/4 as the income of wage-earning families (exclusive of service wives and pensioners). The actual gross income given by Madge for this kind of family for all interviews and budgets taken together is only £6/0/2, just about £1 less than we should expect.

The main reason for the low incomes, of course, is that Leeds wages are below the national average, because of the predominance of the clothing industry. As no occupational data are given by Mr. Madge, it is impossible to tell from the book how many clothing workers are included. The average earnings in clothing, in July 1942, were (for men, boys, women and girls respectively), 18 per cent., 18 per cent., 13 per cent. and 8 per cent. below the national average. What this means, of course, is that Leeds is an unrepresentative area as to incomes (and thus savings) because one of the dominant industries happens to be the worst-paid major industry in the country. Guessing from the general relations worked out by Mr. Rothbart,[1] we might say that the extra £1 family income would add about 2/– to National Savings, which is about 50 per cent. of the average arrived at by Mr. Madge!

Another external check we might apply is to see if unskilled workers are contained in the right proportion to skilled workers and black-coats. According to the Census of 1931, skilled labour *plus* minor commercial *plus* semi-skilled labour outweigh unskilled labour in a 3.1 : 1 ratio.[2] Among Madge's successful interviews and budgets, on the other hand, the ratio is only

[1] Though the factual basis for these relations is very shaky, as has been pointed out before.

[2] See Table, p. 56, in Carr-Saunders and C. Jones: *Social Structure of England and Wales.*

one of 1.8 : 1 (even including Civil Defence as skilled).[1] While it is possible that a different classification has been used, the figures establish a suspicion that the sample is overloaded with unskilled manual workers. This, of course, would again make for an understatement of incomes and even more so of savings; for as Mr. Madge himself states, unskilled workers have a lower propensity to save. This specially affects National Savings while insurance saving would be hardly affected.

Next, the figures obtained in Leeds should be checked against the national total of Small Savings. Such an external check is, in fact, attempted in the book (p. 52) but the result is rather devastating. It is found that the savings figure per family in Leeds comes out at less than a quarter of the national figure (including Defence Bonds) or less than one third if Defence Bonds are excluded.

The figure obtained by Mr. Madge is, in fact, only just about equal to that part of the national total which is collected by the Streets Savings Groups. In view of what we have said before on the neglect of that part of saving which is not currently converted, within the week, into stamps or Certificates, this is certainly more than a mere coincidence.

The only explanation which could be advanced for such a discrepancy apart from the unrepresentative nature of the sample is that the difference might be accounted for by middle-class savings. But it is not difficult to show that this cannot possibly be so. Of total National Savings of £466 millions, small savings, according to the Leeds survey, would account for £133 millions, or even after the various adjustments made by Mr. Rothbart (p. 134) for only about £185 millions. This leaves £280 millions to be accounted for by middle-class savings. There are about 2.5 million middle-class families. We are, therefore, asked to assume that the *average* middle-class family saves about £110, or over £2 a week through the instrument of "small savings" alone, in addition to the instruments of "large savings" and to life insurance, etc. This is manifestly absurd. The answer surely is that the difference is very largely due (much more than Mr. Rothbart has already allowed for by raising the

[1]Calculated from Table on p. 26.

figure obtained) to the deficiencies and unrepresentative nature of the sample, and errors in the results obtained. We believe we have shown in this article a large number of cumulative errors of understatement of savings which make the discrepancy far from surprising.

The result that 44 per cent. of all families do not take any part in National Savings is also difficult to reconcile with the facts. Even if *all* middle-class families took part in the Campaign it would mean that some 38 per cent. of all families did not take part in any form of National Savings. This would leave only about 9 million families in the field. Now, there are over 10 million new "War" Holders of Savings Certificates, 2 million holders of Savings Stamp books, and 10 million holders of P.O.S.B. books. Even after allowing for a good deal of double-counting (*e.g.*, two holdings per family) we are still left with substantially more families taking part than can be squared with Mr. Madge's findings.

If our result be true that the average savings must be very considerably underrated, the statements regarding the degree of concentration of savings also fall automatically.

Whether we assume that a number of heavy savers have been left unearthed by the enquiry, or whether we assume that some of the light savers are, in fact, heavy savers, or whether we assume that some of the non-savers are, in fact, savers (the most likely thing, of course, is a combination of all three), the degree of concentration would be diminished by any approximation of Mr. Madge's findings to the true figures.

As long as the savings figures shown are only about one-third of the actual figures, it can be claimed without apparent absurdity that 3 per cent. of wage-earning families do 31 per cent. of all National Savings, although even this involves a weekly saving of over 37/– for each of the top 3 per cent. of wage-earners. But if we multiply the savings figures three times—as we ought to—the top 3 per cent. would have to save over £5 each per week in order to account for 31 per cent. of all National Savings. This, evidently, strains all reasonable belief.

VI. *Gaps in information collected.* The general upshot of Mr. Madge's enquiry is that the relationship between Savings and Income is not very clear and fairly sporadic. (This, we have suggested, might be largely due to the small scale and deficiencies of his sample but this is not the point now.) In face of this negative result, Mr. Madge adopts a defeatist attitude. He says, in effect, that serious saving is an individual habit, due to the general background of the saver's home and environment rather than to any measurable economic conjunction.

This conclusion is quite unwarranted There is no justification for throwing away the baby with the bath-water in this manner. This conclusion would be justified only if the economic relationship had been tried out, and found to be insufficient to explain savings. Actually, the present weekly gross income can only be one such factor among many. Some factors which should be investigated—but this again would require a larger sample than Mr. Madge's—are : (1) The dependence of National Savings on age ; (2) Dependence on regularity of earnings (as distinct from size only) ; (3) Dependence on the amount of unemployment in the family during (shall we say) the five years before the war ; (4) Dependence on the average income of the family during the preceding five years. Those are but some of the factors which are just as likely to be determinants of National Savings as the gross income in the week of the enquiry. There is no attempt to follow up any of these clues.

To prove a correlation of "Savings" with "Excess Income" as Mr. Madge does surely amounts to begging the whole question. Heavy savers are bound—among other things—to spend less on food, clothing and fuel and to convert the "frills" of these classes of expenditure into savings. The correlation between "Excess Income" and National Savings, therefore, shows mainly that to some extent heavy savers stint themselves of something in order to save—not a world-shaking discovery.

VII. *Final "non-sequitur."* Now even if we consider all the evidence as satisfactory—has it been proved that National Savings are a "luxury" and heavily concentrated ? The answer is "No"—for two reasons.

In the first place : the answer has been reached only by drawing a strict line of separation between what are in social life two very closely related aspects of the same thing : National Savings and "industrial" insurance. All that is claimed really is that at low income levels the "industrial" method of saving is more important relatively to the "national" method than at higher income levels. This is a very different thing from saying that the National Savings Campaign does not "touch" the lower income groups. For all we know, the effect of the Campaign on lower income groups may be to encourage the maintenance of "Industrial Saving" which would otherwise lapse. After all, the two methods are closely associated in people's minds (the insurance collectors will use the same patriotic and economic arguments as the secretaries of savings groups).

In the second place : even if current saving *in one particular week* were heavily concentrated, it certainly does not follow that holdings of savings *over the whole period of the war* will also be concentrated in any similar degree. This week's heavy savers may become the small savers or non-savers of to-morrow, and vice versa. Any "mobility" between the different classes of war savers will tend to reduce the degree of concentration of holdings. An instantaneous picture like Mr. Madge's (based on one particular income period) presents a picture of a transitory distortion rather than of the normal state of affairs which would tend to get established over longer periods of time. The best way of restoring proper proportions would be to take a sample of war savings accumulated since the beginning of the war or another lengthy period of time.

The steep graduation of National Savings with income—if it were true—would not in itself be a disadvantage in the scheme of war finance. We don't want people to save *à tout prix* ; we want people to be able to take up their rations, at controlled prices, of food and (if they have no stocks) of clothing. While saving should not be a "luxury" people ought not to undermine their working efficiency or stint their children of proper food. Those legitimate needs should come before savings. Or again, in the case of a person who has been unemployed for a long time, the repayment of debts, the redemption of his belongings,

the rehabilitation of his home, the resumption of lapsed insurance policies—all these may be legitimate prior claims on his earnings before we should expect a participation in National Savings. In fact, this adjustment of savings to the legitimate needs of the individual family forms the principal economic case for voluntary savings as compared with compulsory forms of finance, whether additional taxation or compulsory loans.

H. W. SINGER

Saving and Spending in Leeds: a Reply to Dr. Singer's Criticisms

By Charles Madge and Erwin Rothbarth

"A large proportion of wage-earners' savings are due to a small proportion of wage-earners." Dr. Singer, after a thorough and searching examination of the Leeds enquiry, believes this statement (*War-Time Pattern of Saving and Spending*. By Charles Madge. Cambridge University Press. 1943.) to be unfounded. To us it still appears to be true and sufficiently important to necessitate an answer to Dr. Singer's criticism.

Before embarking on the tedious task of answering Dr. Singer point by point it seems worth while to draw the reader's attention to one very surprising fact: Dr. Singer's detailed criticism seems hardly to be concerned with the distribution of savings at all, but merely with the average level of saving per family. Dr. Singer claims that if it be true that average savings are considerably underestimated, "the statements regarding the degree of concentration also fall automatically." In this connection the table (see next page), comparing the results of the first and second parts of the Leeds enquiry (interviews only) is very instructive.

What becomes of Dr. Singer's reasoning in the light of this table? Average saving increases from 20*d*. to 52*d*., 10 per cent. of all savers own 55 per cent. of all savings, instead of 59 per cent., and 50 per cent. of all savers own 2 per cent., instead of none.

Dr. Singer's main reasons for believing average national savings to have been underestimated may be summarised as follows:

(i) Information actually supplied was misinterpreted. "Residuals" ought properly to be treated as savings.

(ii) The families supplying information were not a random sample of Leeds families: the average size of the family in the

	National Savings			
	First part of Interview Enquiry		Second part of Interview Enquiry	
	Pence saved per week	Proportion of total savings due to families saving larger amounts	Pence saved per week	Proportion of total savings due to families saving larger amounts
Lower Quartile ...	0	100	0	100
Median	0	100	12	98
Upper Quartile ...	24	88	62	88
Upper Decile ...	60	59	132	55
Mean National Saving	20 pence		52 pence	

sample is too small, war-workers were under-represented, lodger-earners were under-represented, families that are thriftier than average tend to be more secretive than average.

(iii) The Leeds data are not representative for the country as a whole as the average family income in Leeds is lower than in the country as a whole.

The first criticism we reject for reasons which will be supplied later on. As regards the second point, the possibility of a correlation between secretiveness and thrift was admitted in the book. The other points under this heading we regard as either invalid or irrelevant. The third point is not really a criticism of the enquiry. On the contrary, if the Leeds family income is below the national average then we can more easily reconcile the findings of the enquiry with published small savings totals. This possibility was stated explicitly on p. 134 of the book. Dr. Singer's attempt at calculating the working-class family income on the basis of Ministry of Labour earnings data is interesting though fraught with difficulties which he does not discuss.

Admitting then that owing to the secretiveness of heavy savers and owing to the unrepresentativeness of Leeds the

average savings per family are underestimated, it does not follow that the concentration of savings was substantially overestimated. This was empirically shown in the table given above. It is also plausible on *a priori* grounds. The addition to the Leeds sample of a small stratum of heavy earners who are large savers would raise the savings average to the required level without affecting the degree of concentration of savings to any appreciable extent.

Two further points made by Dr. Singer have a bearing on the degree of concentration of savings. He draws attention to the discrepancy between budget data and interview data as to the proportion of families who do not perform any national saving. This criticism is reinforced by external evidence. It is shown that if Leeds figures are representative of Great Britain and if the interview data reflected Leeds conditions correctly, it would be impossible to account for the number of families owning Savings Certificates, Savings Stamp books and Post Office Savings Bank books. According to the interview data, 44 per cent. of families are non-savers; according to the budget data, 28 per cent. Now it should be noted that the percentage of non-savers indicated by the budget data is certainly compatible with Dr. Singer's national total. Let us therefore confine ourselves to budget data. According to the Leeds enquiry (p. 68), 50 per cent. of all budget-keeping families own 6 per cent. of all national savings; 10 per cent. of all budget-keeping families own 51 per cent. of all national savings. Budget-keepers are not a random sample of humanity and savings are almost certainly less highly concentrated amongst budget-keepers than in the population as a whole.

Towards the end of his criticism Dr. Singer argues "even if current savings in one particular week were heavily concentrated it certainly does not follow that holdings of savings over the whole period of the war will also be concentrated in any similar degree." No, it certainly does not follow. However, in the first place the figures used are weekly averages of monthly national savings; in the second place, p. 68 of the book clearly states that it does not follow; in the third place, the frequency distribution of changes in Glasgow and Aberdeen Savings Bank

Accounts are entirely consistent with the assumption of a strong persisting inequality in the distribution of savings.

It seems to us that Dr. Singer has adduced no valid evidence against the statement that "a large proportion of wage-earners' savings are due to a small proportion of wage-earners."

Finally, in a concluding passage headed "final non-sequitur," Dr. Singer argues that even if national savings were shown to be unequally distributed, this would not prove the National Savings Movement to be a bad thing. The book did not say or even imply that it would. In view of this fact the heading of the passage acquires a new, if probably unintended, meaning. Incidentally it may be noted that Dr. Singer's apologia neglects the fact that there is strong variation in savings at any given income level.

. . . . . .

It may be useful to answer point by point some of Dr. Singer's criticisms which, though they are only rather indirectly relevant to the question of the degree of concentration of savings, are yet of some intrinsic interest.

(i) Dr. Singer thinks that Hire Purchase and Mortgage Payments should be included with savings. For some purposes they should be, and p. 47 of the book estimates the difference it would make to average family saving. But we cannot agree with Dr. Singer on his other point, namely that families making mortgage payments would be likely to coincide with families doing no National Saving, since the former, unlike the latter, are mainly to be found at the higher income levels.

(ii) Where the figures obtained for spending and saving added together and compared with the figure for family income left an unexplained residue, positive or negative, of more than 10*s.*, the data for the family concerned were regarded as imperfect. For those families which passed this test, the average residual was 2*s.* 2*d.*, or 2 per cent. of the family income. Dr. Singer would like to include this with saving, and he also believes that among the families excluded because of high positive residuals there were probably some who were accumulating money to put into National Savings later on.

In the case of the 2*s.* 2*d.* residual, there is no more reason for assigning it to savings than to any other item, and it would be more logical to split it up among them in the proportions indicated by the data.

The high positive residuals are partly counter-balanced by high negative residuals, indicating that a family may well spend above its income one week and below it the next. But a table on p. 36 of the book shows that the interviews which were excluded because of high residuals, negative or positive, have in fact an average positive residual higher by 3*s*. 4*d*. than the successful interviews. Less adequate data on clothing, minor items and saving appear from the figures to explain this difference, but there is no evidence that Dr. Singer would be right in assigning the whole of the difference to saving.

Dr. Singer returns to this point later, and calculates that for families consisting of husband and wife, the addition of the residual to National Savings would raise the latter by 108 per cent. at low income levels, by 80 per cent. at medium income levels and by 12 per cent. at high income levels (cf. Table XXXIX on p. 63 of the book). But if the residuals were really concealed savings, the proportion would not thus fall with rising income. On the contrary, Dr Singer's calculations support the assumption that the residuals represent non-allocated expenditure.

Dr. Singer observes that, comparing the Leeds results with the Ministry of Labour Budgets of 1937–8, Madge deducts from his figure the amount of National Savings and the residual. He sees in this "an implied recognition that the residuals ought to be added to savings." It is nothing of the kind. The Ministry of Labour figures represent the sum of expenditure ascertained for the different families ; as no independent figure was ascertained for total family income, the margin of expenditure which was not ascertained is unknown, and Madge was therefore correct in deducting the margin obtained by his method when making the comparison.

In pursuing this line of criticism, Dr. Singer conveys the impression that savings not "consolidated" into securities during any given week were disregarded in the Leeds enquiry. Though the book stresses the difference between "regular" and "occasional" saving, and discusses the best method of investigating the latter, and though it is explicitly stated (on p. 51 and again on p. 67) that Leeds families were asked to supply a net figure for occasional saving *over the past month*, Dr. Singer persists in alleging "a very serious systematic understatement."

(iii) The next criticism is based purely on a misreading of the text. Dr. Singer infers that because the sample was taken from addresses in the voters' register, families who have come to Leeds since the register was compiled will have been excluded. But in fact, the families interviewed were those at present occupying the addresses extracted from the register, and included a correctly random proportion of newcomers. Dr. Singer makes much of the supposed exclusion of war-workers from the sample through the

use of an out-of-date register, but they were in no way excluded by the methods actually used.

He also suspects that there were war-workers at the addresses classified as "unobtainable." About two-thirds of these were either demolished or condemned as a part of slum clearance. The bulk of the remainder were either semi-rural dwellings on the fringes of the outer wards, or addresses where all the occupants were deaf (usually old-age pensioners) or a death had just occurred. Whatever may have been lost by not getting interviews at these addresses. it was no loss as far as concerned war-workers or heavy savers It should be mentioned that if an interviewer found nobody at home on a first visit, he made a second and if necessary a third visit, choosing different times of day ; if there was still nobody in, a further visit was made after an interval to allow of return from holiday or other excursion from home.

Dr. Singer complains of "ambiguity" in the counting up of budgets and interviews, and implies that perhaps the same families were counted twice, but why this should have been done is not clear. He suggests that he could point out similar "ambiguities" if he hadn't used so much space already.

(iv) To show that the sample is "loaded in favour ot small families," Dr. Singer compares the average size of family in the successful interviews and budgets with that of the Ministry of Labour budgets, which were not a comparable sample and with those of the York Survey (1936) and Bristol Survey (1937). The Leeds figure is only slightly lower than those for the two latter Surveys. Dr. Singer says it is doubtful if war-time families (after exclusion of service wives) are larger or smaller than they were before the war ; other war-time surveys, however, have found them to be smaller, for the obvious reason that young unmarried men have been called up. This appears too from figures given on p. 33 of the book, showing that there are only 46 male lodger-earners in the "successful" sample, compared with 120 female lodger-earners.

Another factor, fully dealt with in the book and raised by Dr. Singer, is that large families had a greater tendency than small to fall into the "unsuccessful" category. If the survey had been more successful with large families, it would probably have obtained a slightly higher average figure for National Savings. As shown by the table on p. 133, average National Savings for the "large" families was 3*d.* above the average for the whole sample, or 1*d.* higher if the more dependable results of the second half of the survey only are used.

(v) Dr. Singer is surprised that the average family income was higher in the second half of the survey, and takes it as further proof that the results are unreliable, but he forgets that in the

second half of the survey the interviewers were operating in different wards of the city and that it would be rather unlikely that incomes in one half of the city should be the same as in the other half.

(vi) Criticising the smallness of the sample, Dr. Singer writes: "The sample claims to allow us to derive conclusions as to the saving and spending habits of British wage-earners, a population of roughly 40 million persons living in some 11 million families." This is a gross misrepresentation, as can be seen by reference to pp. 52 and 134 of the book, where the relation of the Leeds figures to national figures is discussed.

There is not the slightest question that it would have been better to have a bigger sample. At the very beginning of the book, the enquiry is described as "reconnaissance," and the second sentence runs: "The facts involved are of great importance, but it would be wrong to claim anything like finality for the results that will be set forth." It took three interviewers six months to collect the information presented. It is futile to compare such an investigation with the nation-wide budget collection of the Ministry of Labour, where there was every facility for large-scale work: though it may be argued that the Ministry of Labour would have placed economists more greatly in their debt if instead of publishing average figures for one sample of 10,762 budgets in 1937–8, they had taken a series of smaller samples during the period 1919–37 and published separate figures for different income levels and family types. Moreover, the Ministry of Labour Budgets did not attempt to get information on family income or on savings or to check the internal accuracy of the budgets. The comparison with the York and Bristol surveys is also beside the point, because they had nothing to do with saving and spending. The really surprising thing is that the National Savings Committee themselves have not sought to improve on the modest findings of the small experimental unit employed in the Leeds enquiry. Let us hope that they will commission Dr. Singer to organise an enquiry on a really adequate scale.

(vii) Commenting on E. Rothbarth's figures on p. 131, Dr. Singer states that the average National Savings of all budget families is liable to a standard error of 51*d.* He has misread the passage, which makes it clear that the standard error of 51*d.* refers to a group of 16 families. For the 284 families making up the second half of the survey, the standard error of National Saving per family is less than 6*d.* as compared with an average national saving of 4*s.* 4*d.*

(viii) There is a statistical confusion in Dr. Singer's comments on the table on p. 138. Whether National Saving is a luxury or not has nothing to do with the size of the correlation coefficient between income and national saving. It has to do with the regression

coefficient. The correlation coefficient is given merely to indicate the margin of error attaching to the regression coefficient.

(ix) Dr. Singer refers to a table on p. 39 comparing "successful" and "unsuccessful" interviews of families consisting solely of service wives and their children. He deduces that the service wives in the "unsuccessful" interviews have understated their National Savings because of their fear of a cut in their allowances. This is completely unrealistic. Service wives living with their parents are on their own showing (see p. 18) heavy savers. Service wives living on their own and unable to go out to work are naturally not only unable to save but liable to get into debt: hence the negative residual shown in the table for the "unsuccessful" interviews.

(x) Dr. Singer makes a great deal of the discrepancies between National Savings figures in the first and second half of the survey. These discrepancies are fully admitted in the book, and the second half of the survey is stated to give the more reliable figures. But Dr. Singer's comparisons between the two halves are completely vitiated by his failure to take into account the difference in family income.

(xi) A major point in Dr. Singer's criticism is that the average family income for the Leeds families is lower than what he estimates to have been the average family income for wage-earners in 1942 for the country as a whole. On p. 38 it is stated that "Leeds is not necessarily typical of the whole country" in this respect. However, there appear to be several flaws in Dr. Singer's calculations. He assumes that by adding 32 per cent. to average male earnings you get average family earnings. But firstly, the Ministry of Labour budget collection, from which his calculation starts, was not based on a sample comparable with the Leeds sample, since all the families in the former, but not in the latter, included an adult male earner. Secondly, the war-time family has substantially less secondary male earners than in peace-time. Thirdly, the Ministry of Labour figures for average earnings exclude several industries represented in the Leeds sample but with earnings below the average, *i.e.* railways and the catering and distributive trades. In view of the uncertainties introduced by these considerations, it would be rash to assume with Dr. Singer that Leeds average family income is £1 a week less than the national average. He states that, "of course," the lower family income is due to the prevalence in Leeds of the low-paid clothing industry, whereas in fact it is a city of very mixed industries, especially since the war. He also returns to the charge that war-workers have been excluded from the sample, but this, as we have previously seen, is untrue.

He further finds that the ratio of skilled to unskilled workers in the Leeds sample in 1942 does not agree with the ratio for the country as a whole in 1931—a result which is not very surprising,

particularly as the definitions of "skilled" and "unskilled" are bound to be to some extent arbitrary.

(xii) Is national saving an "individual habit" amongst wage-earners ? Dr. Singer thinks we should only be justified in assuming large variation amongst socially similar individuals if in the course of the enquiry "the economic relationships had all been tried out." This is a clear-cut statement and an equally clear-cut fallacy. The fallacy was pointed out about 40 years ago by Karl Pearson. Social characteristics are not all independent. As we introduce "new variables" into the picture a stage will be reached—and fairly soon—where the new variable does not really introduce any new features. Low wages and lack of skill are correlated. Lack of skill and irregularity of work are correlated. Fertility tends to be higher amongst unskilled workers than amongst skilled. In the book, attempts were made to isolate the effects of income, family composition and social grade. Suggestive results were reached. However, a substantial unexplained residue is left. This result is similar to the results given in the very valuable report on Milk Consumption Habits issued by the Agricultural Economics Research Institute in Oxford (K. A. H. Murray and R. S. G. Rutherford). The result may be rather important as it throws considerable doubt on the relevance of much subtle economic analysis.

(xiii) "To prove a correlation of 'Savings' with 'Excess Income' amounts to begging the whole question. Heavy savers are bound —among other things—to spend less on food, clothing and fuel . . ." Dr. Singer has clearly forgotten the point he made a few sentences back. In so far as there is anything in the fairly obvious point he belabours, the correlation between excess income and national saving would tend to be overrated, the residual variation would be underestimated. It is precisely the large residual variation which gave him cause for complaint a moment ago. In actual fact there is not much in the point because for the vast majority of families saving is a moderate proportion of excess income only, and the spurious correlation introduced is quite negligible. It is difficult to resist the impression that Dr. Singer did not appreciate the convenience of introducing excess income as an independent variable. Excess income is an index of the capacity to save which is independent of family composition, whereas there might be variation of saving at a given level of gross income owing to variation in family composition.